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IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Taro FUJII et al. Conf. 6783

Application No. 10/694,822 Group 2183

Filed October 29, 2003 Examiner B. Johnson

ARRAY-TYPE PROCESSOR HAVING PLURAL PROCESSOR ELEMENTS CONTROLLED BY A STATE CONTROL UNIT

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

September 16, 2008

Sir:

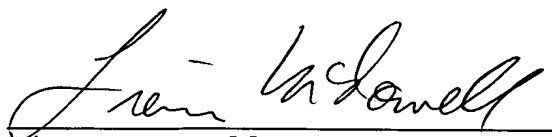
Appellants request a pre-appeal brief review of the final rejection in the above-identified application. No amendments are being filed with this request.

A Notice of Appeal is filed herewith.

The review is requested for the reasons advanced on the attached sheets.

Respectfully submitted,

YOUNG & THOMPSON



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REMARKS

Claims 1, 9, 15 and 21-35 are pending. Claims 1, 9, 15 and 21 are the independent claims. Claims 9, 15 and 21 are the subject of the present request for a pre-appeal review, as claim 1 is indicated as allowed.

Claims 15, 21, 23-25, 30, 32, 33 and 35 were rejected under 35 USC 103(a) as unpatentable over KATSUKI et al. 5,581,767 in view of STOKES 3,537,074.

The position set forth on page 12 of the Official Action is: "The fact that KATSUKI mentions a one-to-one correspondence several times within the patent disclosure does not mean that it would not have been obvious to change this aspect."

However, this position is a clear legal error because it is contrary to one of the basic theories underlying *prima facie* obviousness, i.e., the suggested combination cannot change the basic principle under which the primary reference was designed to operate. See MPEP 2143.01 VI.

In the present case, KATSUKI does not just mention a one-to-one correspondence a few times, but rather, restricts the invention to such an embodiment.

At column 5, lines 32-37, KATSUKI discloses: "This invention is embodied in a bus structure … comprising a processor

... and a control/memory section ... corresponding one-to-one to the aforementioned processor".

Further, each of the claims recites a one-to-one correspondence.

In view of the above, it is apparent that the entire disclosure of KATSUKI is explicitly limited to and thus, based on the basic principal of operation of a one-to-one correspondence between a control unit and a processor.

Modifying KATSUKI in the manner suggested to have a single control unit for a plurality of processors would change the principle of operation of KATSUKI. As one of ordinary skill in the art would not be motivated to change the principle of operation of KATSUKI, the teachings of the references are not sufficient to render the claims *prima facie* obvious, and concluding otherwise is a clear legal error.

Independent claim 21 recites that the multiplicity of processor elements is divided into a number of element areas corresponding to the number of state control units. The number of element areas being less than the multiplicity of processor elements.

As set forth above, KATSUKI clearly requires a one-to-one correspondence between processor units and control units.

The Examiner makes a first clear factual error in concluding that KATSUKI discloses other than a one-to-one

relationship between element areas/state control units and processor elements.

The Examiner makes a second clear factual error in concluding that KATSUKI discloses a configuration of the data paths is changed by switching the instruction codes of the multiplicity of processor elements and the multiplicity of switches. Such switching the context of each operation cycle involves switching (changing) the configuration of the data paths (of the multiplicity of processor elements). In the recited array processor, the context is switched not only by the computer program, but also by the event data.

In contrast, it is apparent that KATSUKI is directed to a bus architecture, which requires a bus protocol. KATSUKI is incapable of propagating the event data for each operation cycle, since KATSUKI requires operating on bus protocol. The bus protocol of KATSUKI is a combination of a first bus for adjacent processors and a second bus for long-distance ones.

In view of the above, it is apparent that KATSUKI operates on a different premise than that which is recited. Accordingly, there is no factual support for the conclusion that KATSUKI meets the recited configuration.

Claim 9 was rejected as unpatentable over KATSUKI in view of common art.

The Examiner recognizes that KATSUKI fails to disclose a central control unit surrounded by plural control units.

The position set forth in the Official Action is that Figure 2 of KATSUKI is a schematic drawing that is not meant to limit the configuration of KATSUKI and that it would have been obvious to modify KATSUKI to minimize the wire distance and overall size of the device.

However, the Examiner makes a clear factual error as to the disclosure of KATSUKI. It is clear that KATSUKI teaches a bus structure with immediately adjacent elements and elements that are not immediately adjacent. KATSUKI uses a first bus structure for the immediately adjacent elements and a different second bus structure for the elements that are not immediately adjacent. See claims 1 and 14. KATSUKI does not suggest a structure other than what is explicitly shown in Figure 2.

In addition, KATSUKI could not be modified to meet the present claims. Modifying KATSUKI in the manner suggested to have a central control unit surrounded by a plurality of processors would require all the bus structures to be the same, which would change the basic principle under which KATSUKI was designed to operate, that is having two different bus structures, one for immediately adjacent elements and another for elements that are not immediately adjacent. As one of ordinary skill in the art would not be motivated to change the principle of operation of KATSUKI, the teachings of the references are not sufficient to render the claims *prima facie* obvious, and concluding otherwise is a clear legal error.

Accordingly, the rejections of claims 9, 15 and 21 include clear factual and/or clear legal errors.

The dependent claims are believed patentable at least for depending from an allowable independent claim.

In view of the foregoing remarks, it is believed that the rejections of record cannot be sustained and must be reversed, and such is respectfully requested.